

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005838**Date Inspected:** 25-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, Oregon**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Hinge K Pipe Beams**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

OIW Fabrication Shop-Bay 3:

QA Inspector Brannon randomly observed OIW personnel setting up various equipment in the aid for welding half fuse section MK#a124-7 (HPS485 W) to half fuse section MK#a124-6 (HPS485 W). The complete joint penetration (CJP) weld is identified as weld joint #WM3-18. Note: After splice welding has been completed half fuse section MK#a124-7 to half fuse section MK#124-6 become MK#120A-1 hinge k pipe beam fuse.

OIW Shop-Bay 1 (PQR):

QA Inspector Brannon arrived at the time requested 0945 to witness OIW Procedure Qualification Record (PQR) number CS068. At approximately 0945 QA Inspector Brannon spoke with Welding Superintendent Mr. Vern Taute in regards to the (PQR) that was going to start at 1000. Mr. Taute stated to QA Inspector Brannon that the PQR has been canceled for today. QA Inspector Brannon informed QA Tack Leader Mr. Joe Adame of the above.

OIW Fabrication Shop-Bay 3:

QA Inspector Brannon randomly observed OIW qualified welder Mr. Tim O'Brien ID#O6 and 1 helper joining ring stiffener plate MK#b125 (HPS 485 W) to hinge K pipe beam fuse half section MK#a124-3 (HPS 485W). The partial joint penetration (PJP) weld is identified as weld joint #WM3-02. Mr. O'Brien was observed welding in the 1G (flat) position utilizing submerged arc welding (SAW) process with a 2.4mm diameter electrode, filler metal brand Lincoln Electric LA85 class F9A4-Eni5-G-H2. QA Inspector Brannon observed the OIW QC CWI

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Inspector's Mr. Mike Gregson and Mr. Rob Walters verifying that the pre-heat and welding parameters were in accordance with the Welding Procedure Specification (WPS). Welding parameters measured by QA are as follows: 598 amps, 33.0 volts and a travel speed of 460.0 mm/min. Welding parameters observed/measured by QA Inspector Brannon appear to be in general compliance with the approved WPS 4020 revision number 0.

OIW Fabrication Shop-Bay 3:

QA Inspector Brannon randomly observed OIW qualified welder Mr. Craig Jacobson ID#J6 welding a joining hinge K pipe beam MK#a111-1 (A508 Gr. 4N Class 2) to base plate MK#a110-4(HPS 485 W). The complete joint penetration (CJP) weld is identified as weld joint #W2-13. Mr. Jacobson was observed welding in the 1G (flat) position utilizing submerged arc welding (SAW) process with a 2.4mm diameter electrode, filler metal brand Lincoln Electric LA85 class F9A4-Eni5-G-H2. QA Inspector Brannon observed the OIW QC CWI Inspector's Mr. Mike Gregson and Mr. Rob Walters verifying that the pre-heat and welding parameters were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Brannon appear to be in general compliance with the approved WPS 4016 revision number 0.

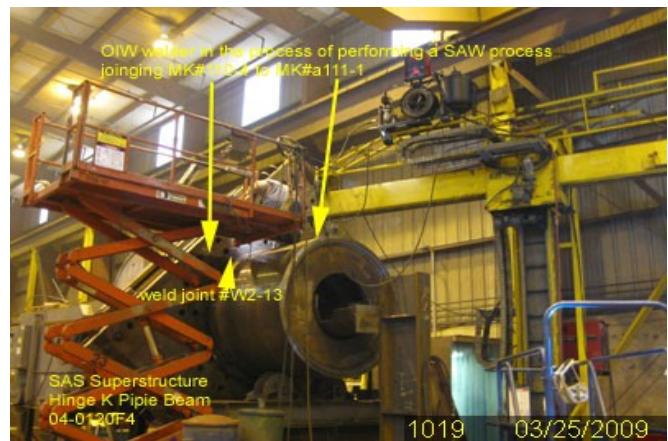
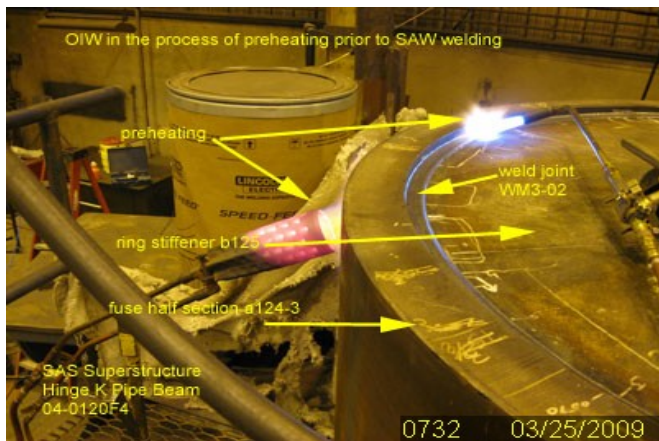
OIW Fabrication Shop-Bay 3:

QA Inspector Brannon observed 2-3mm in depth base material dents in ring stiffener MK#b125 caused by the hammering of the steel members. QA inquired to OIW Foreman Mr. Troy Smith with concerns about production personnel using steel hammer's in the aid with fit-up of ring stiffeners. Mr. Smith stated that he would talk to production personnel and leave a turn over for the swing shift to use care during the fit-up process.

Material, Equipment, and Labor Tracking:

QA Inspector Brannon performed a verification of personnel at OIW. QA Inspector Brannon observed 2 Supervisor's, 2 Quality Control and 5 production personnel on this date.

The following digital photograph below illustrates observation of the activities being performed.



Summary of Conversations:

As stated within this report

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural

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Materials for your project.

Inspected By: Brannon, Sherri

Quality Assurance Inspector

Reviewed By: Adame, Joe

QA Reviewer